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ABSTRACT

A number of noninstructional factors appear to determine the extent to which computers make a difference in writing instruction. Once computers have been purchased and installed, it is generally school administrators who make management decisions, often from an uninformed pedagogical orientation. Issues such as what hardware and software to buy, where to locate the computer lab, the scheduling priority for use of the computer facility, and even the replacement of teachers by computers are determined by administrative considerations rather than by teacher input. Practical implications for the writing classroom include poorly conceived computer lab design which impedes collaborative learning, frequent equipment failure, inappropriate software programs dressed up as "process" or "whole language" material, inadequate user orientation, and insufficient time for many writing activities. Moreover, school management decisions are often influenced by software suppliers and corporate sales persons. Eventually teachers must become involved in informed decision-making and insist on theoretically sound application of technology. (A handout containing a list of 12 books to assist teachers in making informed decisions about computers is attached.) (KEH)

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Making Informed Decisions: Management Issues Influencing Computers in the Classroom

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Making Informed Decisions: Management Issues Influencing Computers in the Classroom

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Whenever teachers gather together and someone mentions the educational impact of computers, everyone seems to have a story about how, at each person's school, decisions about computers in the classroom were made or influenced by someone in administration, someone in another department, or by some outside interest group--parents, community agencies, the federal government--and rarely by the teachers themselves. Why is there so much interference? Why are people other than teachers making the decisions about the academic use of computers. One answer is that computers necessitate an investment of resources--a new budget line--that classroom programs, especially writing classrooms, never received previously: additional staff are needed (faculty and aides knowledgeable about computers), service contracts must be made, and supplies must be ordered--ribbons, disks, and computer paper (no one has yet suggested that students supply their own track-feed paper). Computers also require software, a major expense to buy or develop. And once a budget exists, people outside of the classrooms make the decisions,

people unwilling to trust teachers to make good decisions--management decisions. Andrea Herrmann (1989) notes there is the public pressure for schools to prepare students for the technology of the future. Hermann continues that the ones charged with these preparations are school administrators who have little understanding of the pedagogical applications of computers.

MANAGEMENT DECISIONS

Administrators enjoy portraying themselves as people at the forefront of education, those who have a vision of the 21st century. Administrators have a vague sense that computers will be important for education in the future, yet they have little understanding of how computers can change a classroom. Once computers have been purchased and installed, administrators make management decisions: what hardware and software to buy, where the computer lab finds its location, the scheduling priority for use of the computer facility, and even the replacement of teachers by computers. But, administrators do not always make these decisions on their own. Frequently, they ask for their teachers' help, and all too often the only ones who suggest what to do are the software suppliers and corporate sales persons.

Administrators make decisions from an uninformed pedagogical orientation. For example, attempting to deal with what they see as a noise/distraction problem, administrators may redesign

computer rooms to isolate writers from each other, and in doing so, may architecturally impede collaborative learning. Our computer lab was designed by managers who were concerned with electrical supply lines and table space. They had no interest in creating a computer room designed for interaction among authors, texts, readers, and teachers (Strickland, 1989).

Administrators control the financial support of computers allocated after the initial purchase. English teachers without the financial support of administrators will find that when the budget allocation is not approved then the plug has been pulled on technological innovation. For example, our computer labs have to function without outside service contracts. The effect of this management decision is that on any given day the computer lab has one to three machines with "out of order" notices and at least one printer is at the shop. Administrators accept this occurance; teachers and students do not, yet they are powerless to change it.

Administrators control the actual scheduling of computer lab use. It is reasonable that computer classtime must be scheduled, but the schedule reveals which classes have priority. Often math and science classes receive priority over writing classes. The schedule determines how much time each class can spend on computer writing activities. In some schools, classes take turns; for example, my daughter Laura, a high school junior, goes to the computer lab for a week each marking period. My college writing classes get one class meeting per week scheduled

in the lab. Considering how little control teachers and students have over the schedule of the computer lab, we might ask to what extent the schedule drives instruction? If I know my class will get the lab the third week, what do I plan? Is a week long enough to do anything? Would it make sense to let a specific class have the computers for longer periods and some not at all? Even that decision determines what classroom activities are possible. As one can see, it is not so much the presence of the computer, but decisions about computers--management decisions about financial support and scheduling concerns--that cause a focus on the written product and a fragmentation of the writing process. Recently, a graduate student in my seminar on "Teaching Writing with Computers" received a part-time position at a local community college, one with a computer lab. She found, however, that she would have to petition to use the room, as it was designated for business students and the software was available only for limited use.

Some administrators are trying. At one local high school, the administration made a commitment to equip a lab with 25 computers configured in a local area network and gave two faculty members release time to direct the lab. However, the teachers had no idea what to do with the computers. A few brave souls sent their students to type their papers with a word processing program. The teachers finally asked the administration for an inservice day devoted to writing activities for the computer. In this case, the management decision, influenced by classroom

teachers, fostered informed use of computers. More administrators are going to have to anticipate the need for teacher training in the use of computers and software and follow up one day inservice programs with frequent workshops.

SOFTWARE CORPORATIONS

Management decisions are influenced by software corporations. Corporations control the instructional use of computers, because they control what is on the market, selling inappropriate software to unwary teachers, producing drill/skill software dressed up as "process" or "whole language" material, pricing better software beyond the means of departments, faculty, and students, continuing policies that limit the return of software once it is purchased. Corporations also control software price, site licenses, software demonstrations, support services (not required of textbooks), presentations at professional conferences, and the marketing of educational versions of software (an oxymoron if ever there was one--crippled versions would be more appropriate). Corporations lend support for computers in programs such as writing, but, if we look at some of the metaphors for learning, we discover what corporations consider the goals of education: training, quality control, productivity, accountability, classroom management, time on task, efficiency, performance--all of them business metaphors. Some, including Michael Apple (1989), object that the curriculum

is being usurped by software developers, despite advertising claims that their software has been developed with the "help" of "active teachers." Frank Smith (1988) warns, their educational theory would have a computer "used as a mechanical taskmaster to drill or test . . . according to someone else's prescription . . . presenting the most trivial, decontextualized, and fragmented drills in endless variation" (p. 83). Allowing the curriculum to be controlled by the software developers could prove to be the undoing of education and the computer could prove to be the Trojan horse.

Frank Smith (1988) asks ". . . who will make the decisions that determine how children learn, teachers working directly and collaboratively with children, or 'programmers' pulling the strings from the outside?" (p. 91). As long as we let them, computer corporations will continue to offer unsatisfactory software--endorsed by those who should know better. A friend of mine is creating on-line handbooks for publishing companies, not because he believes in their value but because the corporations are paying well. He reasons that if he did not produce them, the publishers would get someone else to do it. Richard Ohmann (1985) warns, "There are now [in 1985] about 500,000 computers in American schools, many of them gifts or nearly so from the manufacturers and other companies. The motives for such generosity are not hard to imagine." He continues, "Most likely, the technology of classroom computers--especially software--will serve [the] purposes [of monopoly capitalism]" (p. 685). Major

computer corporations, in highly publicized campaigns supporting partnerships between business and education, offer attractive software--full-featured packages that shout "writing & learning" and "reading & learning"--to large school districts, who are required only to purchase the necessary hardware, a purchase occasionally funded by another agency such as the federal government or even a supermarket chain, exchanging grocery receipts for computers. Under pressure to demonstrate technological innovation, schools and teachers will have a difficult time staying aware of the implications of accepting such support.

Nevertheless, educators should question the motives of outside sources to fund and the implications of accepting contributions of software, hardware or combinations thereof. Is accepting outside support shrewd business or a conflict of interest? Presently, most would answer, it depends upon the educational quality of the software. Remember though that much of the software on the market is impressive in its ability to calculate, offer branching alternatives, and present eye-catching graphics, but disappointing in its content--phonics for elementary schools and five-paragraph essays for older students.

"Computers are a commodity," Ohmann (1985) continues, "for which a mass market is being created in quite conventional ways" (p.684). Decisions about using the technology to support literacy--choices made by teachers--are constrained by decisions about using the technology to create consumers--choices made by

the corporate power structure.

Still, it is difficult to have writing programs without software. One consequence is that teachers are forced to choose between bad software and writing their own. Even those of us who have the technical expertise to develop software find others making the decisions by controlling ownership of the software. The management of some institutions feels justified to claim that software authored by their faculty, using their machines, designed for use by their students, is their property. Sale and distribution of the software, locally or nationally, often is prohibited unless the royalties are surrendered to the institution. It matters little that faculty who write software are usually given no release time to support their work and no money through institutional grants or future financial rewards, such as promotion and sabbaticals. This management decision has a powerful inhibiting effect upon the development of theoretically-informed software for computers in writing programs.

CONCLUSION

Computers have and will continue to have a place in our classrooms, yet we must be aware of factors which, through non-instructional in nature, determine the extent to which computers make a difference in instruction.

Teachers are under pressure to conform to whatever choices

have been made--the extent to which commitments have been made to computers in the writing classrooms; what machines are used (IBM, Mac, or Apple environments); and what software is adopted. Deborah Holdstein and Tim Redman (1985) caution that results in the computer classroom may be influenced by factors outside the teacher's control, such as the choice of an awkward word-processing program. Andrea Herrmann (1989) continues, "Decisions are costly; mistakes are expensive and usually have long-lasting consequences" (p. 118). Thus, the ones who should be making the decisions are those who understand best what it is computers can do and cannot do. Teachers must be the ones who insist that theoretically sound applications of the technology are made. Otherwise they will have to live with requirements made by others who decide that technology's purpose is to help students return to the basics, promoting familiar activities such as the use of computerized handbooks, workbooks, and part-to-whole reading/writing software. Teachers have the responsibility to find out what is and is not possible, so that when managers make their decisions about the new technology, they are made according to the specifications of teachers, informed by the writing process theories of Don Murray, Ken Macrorie, Peter Elbow and Roger Garrison and the reading process theories of Ken Goodman and Frank Smith.

The value of the computer will be measured according to the degree that we take responsibility for our administrators making informed decisions. As Ohmann (1985) says, "The technology is

malleable; it does have liberatory potential. Especially in education, we have something to say about whether that potential is realized. But its fate is not a technological question; it is a political one" (p. 685).

* handout attached: A Dozen Books to Help Make Informed Decisions about Writing with Computers

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A DOZEN BOOKS TO HELP MAKE INFORMED DECISIONS ABOUT WRITING WITH COMPUTERS

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